Very often, the ASF does not have an official view on things - we are a group of individuals with varying opinions.

What follows is my own personal view.
ASF Mission

To provide software for the public good.

We do this by providing services and support for many diverse software project communities of individuals.
The Apache Way

- **Meritocracy** — Individuals participate in Apache projects as individuals. They earn and grow the community’s trust and appreciation by what they do and how they do it.

- **Transparency** — Our projects are developed and evolved in the open, ensuring that everyone that wants to contribute is able to.

- **Community** — We believe that great software is an emergent property of great communities, and therefore place community health over all else.
ASF “Org Structure”

- No project hierarchy
- PMC members elect PMC members
- PMC members elect committers
- Members elect members
- Members elect the Board
- Board appoints officers
Early History

- Started as “Apache Group” (8 members)
- Resumed work on NCSA httpd in Feb 1995
  - Chose permissive licensing
- ASF incorporated with 21 members in 1999
- Membership-based organization
- Non-profit charitable organization
Speed Bump: Jakarta (early 2000’s)

- Started as “umbrella” for all Java projects at the ASF
  - Became a successful brand in its own right
  - Tomcat, Ant, Struts, etc.
- Partially copied the foundation org structure
  - “Mini”-board… but problems arose..
  - Avalon: who was responsible?
Key Takeaways: Oversight and Connection

- Jakarta issues led to a lot of navel-gazing
- Ultimately agreed upon an extremely flat organizational structure
  - Very short communication lines
  - Umbrella projects are bad!
- We killed Jakarta: all projects became top-level
- Another learning:
  - Projects need connection to the Foundation
  - Membership can’t be “exclusive club”
Current State (as of May, 2017)

- 182 Top-Level communities
- 6000+ committers
- 682 members
- 150M+ lines of code
- 50+ “podlings” in the Apache Incubator

Communities produce leading software in many categories, including:

- Big Data
- Web and Application Servers
- Foundational Libraries
- Cloud Computing
- Messaging
- Mobile
- Development Frameworks
- Reference Implementations
ASF Growth - Projects

Committees evolution (also called PMC or Top Level Projects)
- New committees
- Retired committees
- Current committees

Change in states
- 1995-01
- 1996-09
- 1997-09
- 1998-05
- 1999-03
- 2000-01
- 2001-09
- 2002-07
- 2003-05
- 2004-03
- 2005-01
- 2006-09
- 2007-05
- 2008-03
- 2009-01
- 2009-11
- 2010-01
- 2010-11
- 2011-09
- 2012-07
- 2013-05
- 2014-03
- 2015-01
- 2015-11
- 2016-09
- 2017-07
ASF Growth - Committers
ASF Growth - Code
Governance Model

- Projects submit quarterly reports to the Board
- Oversight focuses on avoiding anti-patterns
  - “Umbrella” projects
  - Undue commercial influence
  - Stagnating community
- ...and encouraging good things
  - Adding new committers and PMC members
  - Cutting releases
- **NOT** concerned with technical issues
Do-oocracy / CTR as a Strategy

- Decision-making power belongs to doers
- Use lazy consensus to avoid “management by committee”
- Anyone with sufficient merit can veto
  - But they should never need to
  - Consensus through discussion
- Peer review is key
  - “Just get on with it, we’ll object if necessary”
  - Someone is watching
  - Objections and debate are learning opportunities
Future Vision

A vibrant, healthy ASF 50 years from now
Historical Scaling Challenges

- Social / Cultural
- Financial
- Governance and Operations
Social / Cultural Challenges

- **Scaling The Apache Way** - Tacit knowledge, “watch and learn” method to grow communities of people who “do the right thing” does not scale easily.

- **Commercialization of OSS** - From ASF-experienced volunteers bringing their employers, the model has largely shifted to companies bringing their employees to the ASF, making the acculturation problem harder; inconsistent use of ASF brand.

- **Changing with the times** - As modes of communication, tools, and community engagement models change, the ASF needs to change, but core principles have to be maintained.
Financial Challenges

- **Funding ASF operations** - (unmanaged) individual donations hit limits
- **Donated Hardware / Hosting Hit Limits** - Complex build / test requirements, data size, tech debt
- **Not enough infrastructure volunteers** - Complex infrastructure requires better coordination, casual engagement does not provide increasingly demanding service levels
- **Donated legal, marketing / PR Hit Limits** - Scale and public footprint of ASF requires consistently professional and timely management of legal, marketing, press
## Financial Snapshot - Key Lines

<table>
<thead>
<tr>
<th></th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
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<tr>
<td>Donations</td>
<td>59,887</td>
<td>122,716</td>
<td>105,526</td>
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<td>Sponsorship</td>
<td>912,190</td>
<td>817,000</td>
<td>777,795</td>
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<td><strong>Total Income</strong></td>
<td>996,388</td>
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<td><strong>Expense</strong></td>
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<tr>
<td>Infrastructure</td>
<td>508,210</td>
<td>571,050</td>
<td>725,849</td>
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<tr>
<td><strong>Total Expense</strong></td>
<td>873,689</td>
<td>948,339</td>
<td>1,185,054</td>
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<td>Reserve</td>
<td>1,755,793</td>
<td>1,797,656</td>
<td>1,515,257</td>
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</table>

Full data: https://www.apache.org/foundation/records/
Governance / Operations Challenges

- **Ad Hoc processes hit limits** - Traditional approach - talk about it, gain consensus, volunteer to do it - does not work quickly enough, well enough in scaling organization. Examples: public statements, sponsor communications, policy development

- **Board oversight operations hard to scale** - Manual processes based on editing text files, keeping track of action items, number of projects to oversee all put strain on volunteer Directors and Officers

- **Unpaid Volunteers start to have a hard time in some key roles** - VP, Infrastructure, President, VP Marketing / Press, Treasurer become near-full time jobs
Some happy natural synergies ...

- Embracing new social / technical forums takes load off “the center”
- Like everyone else, cloud computing benefits ASF
- Commercialization has a positive side - gulf is smaller
- Decentralized governance model scales naturally
- More people means more volunteers to help with odd tasks
- Level playing field means diverse influences, self-correction
- Do-ocracy, light governance enables people to step up
What we have done ...

➔ Sponsorship program - Started in 2006, has been successful

➔ Paid VP Marketing and Publicity - ASF member with deep knowledge and continuous experience spanning entire history of the foundation

➔ Management of contractors, bookkeeping, invoicing, fundraising operations outsourced - President and other volunteer officers provide oversight

➔ Whimsy - now an ASF project, a set of tools to automate a wide range of operational and oversight management tasks
What we have done ...

- Established small, well-coordinated paid infrastructure team - handful (currently 3) of paid engineers, operating under leadership of a paid lead
- Paying down infrastructure debt and leveraging cloud
- Improved infrastructure automation and monitoring
What we have done ...

- Documentation, documentation, documentation - Huge increase in policy, procedures, CoC and other documentation
- Foundation blog - “Success at Apache” and other series help spread understanding of what works at the ASF
- Community Events, participation in external events - Foundation guidelines and support for community events
- ComDev - Community Development PMC, an ASF project focused on helping individuals and communities succeed at the ASF
- Contain scope of governance - focus on supporting, not micro-managing projects
How have we done up to now?

- **Social / Cultural**  
  Documentation, ComDev, good corporate actors have helped, but acculturation and cultural evolution remain watch items

- **Financial**  
  Sponsorship program has been successful; both this and individual donations have significant upside

- **Governance and Operations**  
  Whimsy has been very successful, as have sourcing and personnel actions
The next 50 years

- **Via small, reversible steps**
  - Incubator will evolve
  - Attic will evolve and consume more
  - Governance processes will evolve
  - Org structure will evolve

- **ASF will survive departures of individual**
  - Contributors
  - Sponsors
  - Projects
The Apache Way is permanent, but implementation will change

- Project needs and modes of operation will change dramatically
  - Decentralizing OSS trends, re-centralizing social norms
  - Innovations in code management, review, packaging, distribution
  - Different kinds of projects, artifacts, sources, contribution styles
- How to operate with transparency, meritocracy and community tomorrow will be different from today
- How we always did things is not important - **why** we did things this way is
Natural Scalability of The Apache Way

- Do-ocracy scales with doers, not “managers”
- Mentors can be highly leveraged
- Light governance, simple principles can propagate easily
- “To enough eyeballs, all [community] bugs are shallow”
Conclusion

- Key lessons learned
  - Light governance, projects-first model scales nicely
  - Sourcing and services expectations are really important
  - Acculturation requires, but also provides, volunteer energy

- Focus moving forward
  - Strengthen culture
  - Smoothly scale governance and operations
  - Embrace and influence positive OSS change
QUESTIONS?
<psteitz@apache.org>